

GATERSLEBEN LECTURE



Speaker: **Prof. Dr. Malcom J. Bennett**
(Centre for Plant Integrative Biology &
Hounsfield Facility, School of Bioscience,
University of Nottingham, Sutton Bonington
Campus, Leicestershire, UK)

Title: **Branching Out: dissecting the genes,
signals and mechanisms controlling
root branching in plants and crops**

Time: **Thursday, March 10, 2016, 2 pm**

Abstract:

Soil represents a complex, highly heterogeneous environment. Root branching is critical for plants to efficiently explore the soil environment to acquire water and nutrients. In my presentation, I will initially review recent advances in understanding about the genes, signals and mechanisms regulating lateral root branching in the plant model, *Arabidopsis thaliana*. Next, I will describe how non-invasive root imaging approaches, such as X-ray based microCT, are proving invaluable to study how root branching is controlled in soil. I will discuss how local differences in soil water distribution can have a major impact on the positioning of lateral roots via a newly discovered adaptive response termed hydropatterning. Finally, I will describe how we are employing microCT with robotics and computer vision approaches to phenotype crop roots at the Hounsfield Facility.

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Place: **Lecture Hall, IPK Gatersleben**

Prof. Dr. Andreas Graner
(organizer)

Prof. Dr. Nico von Wirén
(host)

If you are interested in personal discussions with the speaker please contact the host (phone: 039482/5602) beforehand.